

Amendments to the Claims:

1-12 (cancelled).

13 (currently amended): A method for preparing a biopsy sample of tissue containing malignant cells for chemosensitivity testing, ~~compromising comprising~~:

- (a) obtaining a tumor specimen from a biopsy sample of tissue containing malignant cells;
- (b) mechanically separating said specimen into cohesive multicellular particulates having smooth cut edges;
- (c) growing a tissue culture monolayer from said cohesive multicellular particulates having smooth cut edges;
- (d) inoculating cells from said monolayer into a plurality of segregated sites;
- (e) treating said plurality of sites with at least one agent; and
- (f) assessing chemosensitivity of the cells in said plurality of sites.

14 (currently amended): The method according to claim 13 wherein said plurality of segregated sites ~~comprise~~ comprise a plate containing a plurality of wells therein.

15 (previously presented): The method according to claim 14 wherein said plurality of wells is treated over a length of time adequate to permit assessment of both initial cytotoxic effect and longer term inhibitory effect of at least one of said plurality of active agents.

16 (previously presented): The method according to claim 15 wherein step (d) is accomplished by a multiple well pipetting device.

17 (previously presented): The method according to claim 16 wherein the cells in step (d) are further suspended in medium prior to inoculation into said plate containing a plurality

of wells therein.

18 (currently amended): The method according to claim [17] 13 wherein said agent is at least one of the agents selected from the group consisting of a radiation therapy agent, a radiation therapy sensitizing agent and a radiation therapy desensitizing agent.

19 (currently amended): The method according to claim [17] 13 wherein said agent is an immunotherapeutic agent.

20 (currently amended): A method for preparing a biopsy sample of tissue containing malignant cells for chemosensitivity testing, ~~compromising~~ comprising:

- (a) obtaining a tumor specimen from a biopsy sample of tissue containing malignant cells;
- (b) mechanically separating said specimen into cohesive multicellular particulates of minced tumor tissue;
- (c) growing a tissue culture monolayer from said cohesive multicellular particulates of minced tumor tissue;
- (d) inoculating cells from said monolayer into a plurality of segregated sites;
- (e) treating said plurality of sites with at least one agent; and
- (f) assessing chemosensitivity of the cells in said plurality of sites.